

Problem K: Supermarket Promo

The Tortoise is walking around downtown, when all of a sudden he sees a large mass of people surrounding a supermarket. He spots Achilles inside the commotion, and decides to get closer and inspect.

Tortoise: Hi Achilles. What is going on here?

Achilles: Oh, hey Mr. T. This is all because a special promotion that is going on in this supermarket. We're here to see people participate in a little game they have created to reward loyal customers.

Tortoise: You mean like those contests where they allow someone to pick up items from the shelves for 3 minutes or something like that?

Achilles: Something like that. But they have created something different. Take a look inside. They have arranged one long table where they have placed all the items from the market in a line. When a participant goes in, he starts on the left side of the table, and must keep moving until he reaches the right end. Whenever he feels like it, he can pick up an item, but once he does, he can't pick any other items that cost the same as that last item, or less. And he can't go back, he must keep moving to the right, until the end.

Tortoise: Interesting! So, they can pick items as long as their prices increase?

Achilles: That's it. I tell you, Mr. T. I feel like I want to participate, but I'm still thinking what items to pick up. There's so many things, and with the time limit and all the turmoil out here it can be pretty confusing.

Tortoise: Hmm. How fortunate that I have my laptop here with me. Tell me, Achilles, how fast can you type in a computer?

Achilles: Please! I'm not only the fleetest on foot, but the fastest typist there is! Little known fact...

Tortoise: Okay, give me a hand here, and I'll help you decide which items to pick up.

Achilles: That's the spirit!

Write a program that determines the maximum value of all items that can be picked up from the supermarket table. More specifically, consider a list of positive integers $v_1, v_2, v_3, \dots, v_N$ representing the prices of N items placed on the table. Consider a sequence of indices s_1, s_2, \dots, s_K such that $1 \leq s_1 < s_2 < s_3 < \dots < s_K \leq N$ and $v_{s_1} < v_{s_2} < \dots < v_{s_K}$, representing a group of items that someone can pick up from the table. Choose these items such that their total value is maximised.

Input

Input starts with a positive integer T , that denotes the number of test cases. The first line of a test case contains an integer N , the number of items on the table.

The second line contains the sequence v_1, v_2, \dots, v_N .

$$T \leq 100 ; 1 \leq N \leq 1000 ; 1 \leq v_i \leq 10^5$$

Output

For each test case, print the case number, followed by the maximum possible sum of prices from a group of items that can be picked up from the table.

Sample Input	Output for Sample Input
2 4 10 1 2 3 7 15 8 16 11 5 13 20	Case 1: 10 Case 2: 52